

ABSTRACT

This invention provides a medical device for delivering volumetric quantities of a first and a second biochemically reactive fluid in which separate MBUs atomize the fluids. The device of the present invention includes a fluid delivery device for laparoscopically delivering fluids having two feed conduits for delivering fluid to feed ports of the mechanical breakup units, the mechanical breakup units having two feed ports for receiving fluid from the feed conduits and directing such fluid into spin chambers and funneling portions having a sloped sidewall for directing fluid from the spin chambers through an exit port. The device is suitably dimensioned for creating a spray of two fluids with different viscosities such as fibrinogen and thrombin in such a manner that the thrombin spray cone encompasses the fibrinogen spray cone at a distance of about one inch from the exit port with a 0.5cc/second flow rate to avoid depositing unreacted fibrinogen on a surface. Other instruments such as optical fibers may be incorporated within the device.